

REMARKS

Status of the Claims

Claims 1-19 are pending in this application, the independent claims being claims 1, 14 and 16. By this Amendment, claims 1, 4, 12 14 and 16 are amended, and claims 17-19 are newly presented.

Summary of the Official Action

In the Official Action, the title was objected to as not descriptive of the claimed invention, and the drawings were objected to under 37 C.F.R. 1.83(a), as not showing certain elements recited in the claims.

Claims 14 and 16 were rejected under 35 U.S.C. 112, second paragraph, as indefinite.

Claims 1-3, 9 and 13-16 were rejected under 35 U.S.C. 102(3), as anticipated by U.S. Patent No. 6,328,136 (Tauchi); claims 7 and 8 were rejected under 35 U.S.C. 103(a), as unpatentable over the Tauchi '136 patent in view of 4,960,186 (Honda); claims 10 and 12 were rejected under 35 U.S.C. 103(a), as unpatentable over the Tauchi '136 patent and the Honda '186 patent, further in view of U.S. Patent No. 4,355,785 (Tosata) and "Applicants' Admitted Prior Art"; and claims 4-6 were rejected under 35 U.S.C. 103(a), as unpatentable over the Tauchi '136 patent and the Honda '186 patent, further in view of U.S. Patent No. 4,771,197 (Ivanto) and "Applicants' Admitted Prior Art."

Reconsideration and withdrawal of the objections and rejections respectfully are requested in view of the above amendments and the following remarks.

Amended Title

Without conceding the propriety of the objection, Applicants have amended the title, as requested by the Examiner. No new matter has been added.

Response to Drawing Objections

The objection to the drawings respectfully is traversed.

The drawings are objected to as failing to show parking brake jaws, as recited in original claim 11. In this regard, Applicants direct the Examiner's attention to original Fig. 3 (annotated/marked-up copy attached hereto), wherein an end of the pulley remote from the stator is connected to a ring that cooperates with opposing jaws of the parking brake.

Applicants submit that those skilled in the art readily will appreciate this structure and its operation in view of the illustration in Fig. 3 and the corresponding written disclosure, including original claims 11-12 and the written description at paragraph [0038].

Reconsideration and withdrawal of the objection respectfully are requested.

Formal Claim Amendments

The formal rejection of claims 14 and 16 respectfully are traversed. Nevertheless, without conceding the propriety of the rejection, claims 1, 4 and 12 have been amended to improve their form, and claims 14 and 16 have been rewritten in independent form, as suggested by the Examiner. In this regard, Applicants note that claims 14 and 16 each recite the novel combination of elements of independent claim 1, as relates to an elevator system and a method for driving an elevator system, respectively, and are believed allowable for at least the same reasons. No new matter has been added.

Claim Amendments

Newly presented claims 17-19 have been added to provide Applicants additional scope of protection commensurate with the disclosure. Support for these claims may be found in the application as originally filed. No new matter has been added.

Claimed Invention

The present invention relates to a novel machine, an elevator system including such a machine, and a method for driving such an elevator system. In one aspect, as recited in

independent claim 1, the claimed invention relates to a machine comprising a motor and a pulley. The motor comprises a stator carrying one or more concentrated windings wound on teeth, and a rotor that rotates about the stator, the rotor comprising a tubular casing and permanent magnets. The pulley is coupled to the rotor and is (only) partially overlaying the stator.

Independent claims 14 and 16 recite similar features with respect to an elevator system and a method for driving an elevator system, respectively.

Prior Art Distinguished

Applicants submit that the prior art fails to anticipate the claimed invention. Moreover, Applicants submit that there are differences between the subject matter sought to be patented and the prior art, such that the subject matter taken as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made.

The Tauchi '136 patent relates to a drive machine for elevators with a drive sheave position detector, and discloses a drive machine including a stator and a rotatable drive sheave over which a cable for hanging an elevator cage is wound. However, Applicants submit that the Tauchi '136 patent fails to disclose or suggest at least the above-discussed features of the claimed invention. Rather, in the Tauchi '136 patent, the drive machine includes a stationary shaft 9 for supporting rotation of the drive sheave and bearing a load applied to the drive sheave from the main cable; the stationary shaft 9 carries an armature core 11 having armature coils 10, and an outer rotor 12 carrying permanent magnets 14. Cable grooves 15 extend around the rotor 12 and the coils 10, where the cable grooves are formed in the drive sheave 16 entirely surrounding the stator 10,11. In this manner, the Tauchi '136 patent teaches away from the machine of the claimed invention, in which the pulley/sheave does not extend all along the stator; specifically, Applicants submit that the sheave of the Tauchi '136 patent, as disclosed, must extend all along the stator, because the

sheave is supported at opposite ends thereof by the shaft. The opposite ends of the shaft must be arranged on each side of the stator so as to contact the shaft; if the sheave were any shorter, so as to only partially cover the stator, then it would not be possible to have the two ends supported by the shaft. Accordingly, Applicants submit that the Tauchi '136 patent fails to disclose or suggest at least the claimed features of a pulley partially overlying the stator (not fully overlying the stator), as disclosed in the present application and recited in independent claims 1, 14 and 16.

Further, as discussed above, Applicants submit that it would not be obvious to modify the machine taught by of the Tauchi '136 patent to obtain the claimed invention, because to do so would make the machine structure taught in the Tauchi '136 patent inoperable. Accordingly, Applicants submit that the remaining cited art necessarily fails to remedy the deficiencies of the Tauchi '136 patent, or add anything to the Tauchi '136 patent that would make obvious the claimed invention. In this regard, **the Honda '186 patent** relates to an elevator hoist apparatus with an outer rotor motor, and discloses a structure in which a sheave assembly 14 is disposed without any portion overlying the stator (see Fig. 2). **The Tosato '785 patent** merely is cited for its disclosure of a typical disk brake. **The Ivanto '197 patent** merely is cited for its disclosure of a squirrel cage motor with an outer rotor for an elevator hoist.

For the above reasons, Applicants submit that claims 1, 14 and 16 are allowable over the cited art.

Claims 2-13, 15 and 17-19 depend from claims 1 and 14, and are believed allowable for the same reasons. Moreover, each of these dependent claims recites additional features in combination with the features of its respective base claim and is believed allowable in its own right. Individual consideration of the dependent claims respectfully is requested.

Conclusion

Applicants believe that the present Amendment is responsive to each of the points raised by the Examiner in the Official Action, and submit that the application is in condition for allowance. Favorable consideration of the claims and passage to issue of the application at the Examiner's earliest convenience earnestly are solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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JAO:CPW

Attachment:

Annotated/Marked-up Copy of Original Fig. 3

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